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LVI.—*A Preliminary List of the Arctiinae of Pará, Brazil, and a few from other Localities.* By Lord ROTHSCHILD, F.R.S., Ph.D.

THE material of the subfamily Arctiinae on which this list is founded forms part of very extensive collections made at Pará by the Rev. A. Miles Moss, English Chaplain there. A considerable number were bred, but the larger series were taken either on the electric lights of the town of Pará or the special lamps used by Mr. Moss for attracting Heterocera.

1. *Thyractia cedo-nulli* (Stoll).

*Phalæna cedo-nulli*, Stoll in Cramer, Pap. Exot. vol. iv. part xxix. p. 108, pl. cccxvi. figs. A, B (1781) (Surinam).

2 ♂ ♂ and 2 ♀ ♀ bred, 4 ♂ ♂ caught.

2. *Gonotrepes friga* (Druce).

*Thyractia friga*, Druce, Ann. & Mag. Nat. Hist. (7) xvii. p. 406 (Carabaya).

1 ♂ caught.

3. *Zævius calocore*, Dyar.

*Zævius calocore*, Dyar, Zoologica, N.Y. vol. i. p. 126, pl. lxi. no. 3 (1910) (Hoorie, British Guiana).

[The ♀ of this species has not yet been described. It differs from the ♂ in being much larger, the fore wings are  
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wider in proportion to the length (♀, length of fore wing 22.5 mm., width 12.5 mm.; ♂, length 15 mm., width 8.5 mm.), and the costa near the base is produced into a lappet-like convex projection; the hind wings are large with apex produced into a point, not small and round as in the ♂; the colour is salmon-pink, entirely opaque, being densely scaled. ♀ described, Foute Boa, Amazons, Sept. 1906 (*G. M. Klages coll.*.)]

1 ♂ caught.

4. *Robinsonia mossi*, sp. n.

♂. Pectus white; palpi, frons, and vertex yellow; patagia buff; rest of thorax and abdomen pure white.

Fore wing semihyaline white, nervures whitish grey, costa and terminal fifth of wing sooty mouse-grey; hind wings semihyaline white.

Length of fore wing 18 mm.; expanse 40 mm.

1 ♂ type caught.

5. *Robinsonia rockstonia*, Schaus.

*Robinsonia rockstonia*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 206 (1906) (Essequibo, British Guiana).

1 ♂ caught.

6. *Robinsonia dewitzi*, Gundl.

*Robinsonia dewitzi*, Gundlach, Contr. Entom. Cuba Lepid. i. p. 265 (1881) (Cuba).

8 ♂♂, 1 ♀ caught.

7. *Idalus neja*, Schaus.

*Idalus neja*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 208 (1906) (St. Jean de Maroni).

This insect shows great variation in size; the majority from the Guianas are small, but a few equal in size the Brazilian specimens, which appear to be mostly large.

Length of fore wing, ♂: St. Jean de Maroni (smallest), 18 mm., expanse 41 mm.; Pará (largest), 23 mm., expanse 53 mm.

The undescribed ♀ is much larger, and differs from the ♂ in the much broader, more brightly coloured, and much more rounded fore wings, and in the larger and more rounded hind wings.

1 ♂♂, 1 ♀ caught.

8. *Idalus pandama* (Druce).

*Halisidota pandama*, Druce, Proc. Zool. Soc. Lond. 1893, p. 288, pl. xix. fig. 8 (R. Songo, Bolivia).

1 ♂, 1 ♀ caught.

9. *Idalus admirabilis* (Cram.).

*Phalena admirabilis*, Cramer, Pap. Exot. vol. ii. pt. ix. p. 11, pl. ciii. fig. G (1777) (Surinam).

It is more than probable that what we at present call *Idalus admirabilis* is composed of a conglomeration of several species; but, without the examination of the genitalia of a large series of specimens from a variety of localities, this can only be surmised.

There are individuals with and without the dark spot above vein 5, others with deep rose hind wings, some with white hind wings, etc.

The ♀ in the present series has white hind wings, no spot above vein 5, and an almost straight median band, while the ♂♂ all have the spot, have hind wings of varying shades of rose, and a strongly-curved median band.

13 ♂♂, 2 ♀♀ caught.

10. *Idalus daga* (Dogn.).

*Empusa daga*, Dognin, Le Nat. 1891, p. 125 (Zumba).

All the three examples are of the typical form with yellow abdomen.

Formerly I sank the red-abdomened form *dares*, Druce, to the rank of an aberration, in view of the series of specimens at Tring from Las Quignas, Venezuela, consisting of individuals with brick-red abdomen as well as yellow. Apparently, however, specimens with yellow abdomen do not occur in Costa Rica and Ecuador, nor do individuals with deep crimson abdomen occur in Eastern S. America. Therefore, either *dares* must be treated as a subspecies of *daga* or as a good species: only the examination of the genitalia can decide which.

1 ♂, 2 ♀♀ caught.

11. *Idalus mossi mossi*, sp. n.

♂. Closely allied to *melanopasta*, Dogn., but differs in the shape of the claspers. Externally the apex of fore wing is more produced and the outer half of wing is less freckled; the hind wing has the apex produced to a sharp point, and the

abdominal half of the wing is deep uniform rose acutely cut off from the pale costal half.

Length of fore wing 18 mm.; expanse 41 mm.

1 ♂ caught.

[*Idalus mossi fluviatilis*, subsp. n.

♂. Differs from *mossi mossi* in being much paler in colour, in the large tooth running into the yellow terminal area of fore wing being reduced to a point, and in the hind wing being entirely sericeous buffy cream-grey with only a slight rose tint on the hairs of abdominal half.

♀. Differs from ♂ in being much darker and having the hind wings large and normally developed and uniform rose-colour throughout.

2 ♂♂, 2 ♀♀, Fonte Boa, Upper Amazons, Aug. 1907 (*S. M. Klages coll.*); 1 ♀, Manaus-Yutshi (*Maxwell Stuart*).]

#### 12. *Idalus favillacea* (Rothsch.).

*Automolis favillacea*, Rothschild, Novit. Zool. vol. xvi. p. 36. no. 55, pl. v. fig. 28 (1909) (Aroewarwar Creek).

Mr. Moss obtained 1 ♂ of this species, of which hitherto only the unique ♀ type had been recorded.

♂. Differs from ♀ in being smaller, in the dark area of hind wings being smoky-black sharply cut off from the cream-coloured costal area, and in the hind wings being small and triangular.

Length of fore wing, ♂ 17 mm., ♀ 20 mm.; expanse, ♂ 41 mm., ♀ 47 mm.

1 ♂ caught.

#### 13. *Aphyle margaritacea*, Walk.

*Aphyle margaritacea*, Walker, List Lepid. Ins. Brit. Mus. pt. iii. p. 720, no. 1 (1885) (Pará).

1 ♂, 2 ♀♀ caught.

#### 14. *Phæomolis incarnata* (Hampson).

*Aphyle incarnata*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 20, no. 1215, fig. 11 (1901) (St. Paulo di Olivencas).

1 ♂, 1 ♀ caught; 1 ♀ bred (cocoon hammock-shaped, with long narrow pointed ends yellowish wood-brown).

There appears to be considerable confusion with this insect and its near allies; Sir George Hampson, when describing it, only knew the ♀; the ♂ was described five years later by Mr. Herbert Druce as *Idalus marpessa*

(Ann. & Mag. Nat. Hist. (7) xvii. p. 497 (1906) (Carabayá), and placed by Sir George in the genus *Eupseudosoma*. In 1909 I described an allied insect as *Prumala incisa* (Nov. Zool. vol. xvi. p. 25, pl. iv. fig. 17 (1909) (Fonte Boa)) from a ♀, and this insect Sir George placed next to his *incarnata* in *Aphyle*; in 1911 Monsieur Dognin described a ♂ distinct from Druce's *marpessa* under the name of *Eupseudosoma parapessa* (Hét. Nouv. Amer. Sud, fasc. v. p. 9 (1912) (Fonte Boa)), which is evidently the ♂ of my *incisa*. Lastly, in 1909 I described as *Antaxia affinis* (Nov. Zool. vol. xvi. p. 26, pl. iv. fig. 20 (1909) (Carabayá)) a further allied form which Sir George placed next to *parapessa*, Dogn., in *Eupseudosoma*. Dr. Jordan has examined all these with the exception of the ♂ *parapessa*, and finds the neuration is the same.

Dr. Jordan also examined a number of species placed in the genera *Phæomolis*, *Neaxia*, *Eriostepta*, *Amaxia*, *Evius*, and *Areomolis*, and is convinced that all the species with modified or distorted hind wings due to the presence of scent-organs belong to one genus, while those with normal hind wings belong to another. The presence of the very varied types of scent-organ displaces the veins of the hind wings, and the resulting neuration cannot be considered generic, as it is confined to the ♂ sex.

It becomes apparent, therefore, that the whole of the Arctiinae requires a complete classificatory revision, and the present paper must be read in that light; the alteration of generic names can only be considered as tentative.

### 15. *Phæomolis bella bella* (Schaus).

*Neaxia bella*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 212 (1906) (St. Jean de Maroni).

Sir George Hampson places this directly after *Neaxia theon*, Druce, whereas the neuration agrees with that of *Phæomolis lepida*, Schaus. I believe, in fact, that *lepida*, Schaus, is only the Central-American race of *bella*, Schaus, and must stand as *Phæomolis bella lepida* (Schaus).

5 ♂♂, 1 ♀ caught.

### 16. *Prumala saturata* (Walk.).

*Automolis saturata*, Walker, List Lepid. Ins. Brit. Mus. pt. vii. p. 1635 (1856) (Pará).

7 ♂♂ caught.

17. *Prumala similis*, Rothschild.

*Prumala similis*, Rothschild, Novit. Zool. vol. xvi. p. 268 (1909) (Fonte Boa).

6 ♂♂, 6 ♀♀ caught.

18. *Prumala intermedia*, sp. n.

Similar to *optima*, Butl., and *hieroglyphica*, Schaus, but with the discal pattern of fore wings much obliterated and more saturated with rose-colour. Hind wings semihyaline bright rose. Size of *optima*.

2 ♂♂ caught.

19. *Premolis semirufa* (Walk.).

*Halisidota semirufa*, Walker, List Lepid. Ins. Brit. Mus. pt. vii. p. 1708 (1856) (Pará).

9 ♂♂, 4 ♀♀ bred; 2 ♀♀ caught (cocoon rough hammock-shaped, greyish brown).

20. *Azatrepes discalis* (Walk.).

*Halisidota discalis*, Walker, List Lepid. Ins. Brit. Mus. pt. vii. p. 1706 (1856) (Amazon Valley).

*Zatrephes paradisea*, Butler, Ill. Lepid. Het. Brit. Mus. pt. i. p. 52, pl. xvii. fig. 11 (1877) (Rio Yutaki).

In 'Novitates Zoologicæ,' xvi. p. 33, I unfortunately identified Walker's *Halisidota discalis* with the insect afterwards described by Sir George Hampson as *Azatrepes argyrotis*, quite failing to understand that in reality Butler's *paradisea* was identical with Walker's *discalis*, and therefore must fall as a synonym.

8 ♂♂, 1 ♀ caught.

21. *Azatrepes argyrotis orientalis*, subsp. n.

♂. Differs from *argyrotis argyrotis*, Hmps., in the heavier brown markings of the fore wings, the more distinct yellow lower half of abdomen, and the distinct orange-yellow wedge in the hind wings.

♀. Differs in more yellowish-brown markings, not rufous-brown.

4 ♂♂, 7 ♀♀ caught.

22. *Zatrephes modesta*, Schaus.

*Zatrephes modesta*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 210 (1906) (St. Jean de Maroni).

1 ♂ caught.

23. *Zatrephes flavida*, Hmps. n.

*Zatrephes flavida*, Hampson, Ann. & Mag. Nat. Hist. (7) xv. p. 441 (1905) (St. Jean de Maroni).

Sir George Hampson unites my *albotestacea* with his *flavida*, but I do not agree.

1 ♂ caught.

24. *Zatrephes trilineata*, Hmps. n.

*Zatrephes trilineata*, Hampson, Ann. & Mag. Nat. Hist. (7) xv. p. 441 (1905) (St. Jean de Maroni).

2 ♂♂ caught.

25. *Zatrephes bilineata rufobrunnea*, Rothsch.

*Zatrephes bilineata rufobrunnea*, Rothschild, Novit. Zool. vol. xvi. p. 31, pl. iv. fig. 40 (1909) (Fonte Boa).

Sir George Hampson has treated my *rufobrunnea* as a mere aberration, which is quite wrong, as it is the Amazonian local race, whereas typical *bilineata* only occurs in Southern Peru.

1 ♂ caught.

26. *Zatrephes foliacea*, Rothsch.

*Zatrephes foliacea*, Rothschild, Novit. Zool. vol. xvi. p. 31, pl. iv. figs. 41-43 (1909) (Fonte Boa).

27. *Zatrephes flavinotata* (Rothsch.).

*Automolis flavinotata*, Rothschild, Novit. Zool. vol. xvi. p. 39, pl. vi. fig. 4 (1909) (San Antonio do Javary).

Sir George Hampson has placed this insect and my *Automolis pseudopræmolis* in *Zatrephes*, which appears to me quite wrong, but until the whole subfamily can be revised I leave them in that genus rather than risk a double change.

The undescribed ♂ differs from the ♀ in its narrower and more pointed fore wings, and in the less extent of rose on the hind wing.

The Pará series is very small. Expansc: type ♀, 36 mm.; Pará, ♂♂ 26-30 mm., ♀ 30 mm.

5 ♂♂, 1 ♀ caught.

28. *Zatrephes nitida* (Stoll).

*Phalæna nitida*, Stoll in Cramer, Pap. Exot. vol. iii. pt. xxiii. p. 147, pl. cclxxiv. fig. F (1780) (Surinam).

Sir George Hampson has united my *rosella* with *nitida*, but this is not the case, the two being quite distinct.

The three examples sent by Mr. Moss are particularly bright, and have the hind wings deep rose-colour.

3 ♂♂ caught.

29. *Zatrephes rufescens*, Rothsch.

*Zatrephes rufescens*, Rothschild, Novit. Zool. vol. xvi. p. 29 (1909) (Fonte Boa).

2 ♂♂ caught.

30. *Zatrephes rosacea*, Rothsch.

1 ♂ caught.

31. *Zatrephes traili*, Butl.

*Zatrephes traili*, Butler, Illust. Lepid. Het. Brit. Mus. pt. i. p. 52, pl. xvii. fig. 7 (1877) (River Juruá).

1 ♀ caught.

32. *Eupseudosoma bifasciata* (Cram.).

*Phalæna bifasciata*, Cramer, Pap. Exot. vol. iii. pt. xxi. p. 104, pl. cclii. fig. F (1779) (Surinam).

2 ♂♂, 1 ♀ caught.

33. *Eupseudosoma involuta* (Sepp).

*Phalæna involuta*, Sepp, Surin. Vlind. vol. i. pl. cxv. (1852) (Surinam).

8 ♂♂, 4 ♀♀ caught.

34. *Eupseudosoma mossi*, sp. n.

♀. Pectus white; head and antennæ very pale grey; thorax white; abdomen whitish grey, anal segment white with darker grey spot. Fore wing satiny white, a blackish-grey dot between veins 3 and 4 at their base, and a similar subterminal one between 5 and 6. Hind wings satiny-white.

Length of fore wing 18 mm.; expanse 42 mm.

1 ♂ caught.

35. *Eriostepta fulvescens*, Rothsch.

*Eriostepta fulvescens*, Rothschild, Novit. Zool. vol. xvi. p. 27, pl. iv. fig. 28 (1909) (Fonte Boa).

1 ♂ caught.



36. *Amaxia pseudodyuna*, sp. n.

♂. Allied to *dyuna*, Schaus, from Sao Paulo, but distinguished at once by the reduced yellow and increased scarlet marking in basal area of fore wing, and in the intense rose-coloured opaque hind wings with vein 5 absent.

Length of fore wing 15 mm.; expanse 34 mm.

6 ♂♂ caught.

37. *Amaxia flavicollis* (Rothsch.).

*Prumala flavicollis*, Rothschild, Novit. Zool. vol. xvi. p. 25, pl. iv. fig. 15 (1909) (Fonte Boa).

The type and unique ♂ hitherto recorded is much broken, so it is very gratifying to find two fine examples among Mr. Moss's captures, especially as now correct dimensions can be given.

Length of fore wing 17 mm.; expanse 40 mm.

2 ♂♂ caught.

38. *Amaxia perapyga*, sp. n.

♂. Differs from *apyga* above in the absence of red in the basal brown area of fore wing, in the yellow dot in same area, in the larger lobe to costa of hind wing and the much larger and practically colourless androconial patch, and in the smaller size, and in the anal segment of abdomen being almost entirely yellow. Below it differs on fore wing in the much larger androconial patch and in the absence of the broad black band beyond it, only a small patch of black scales at upper and lower edges of outer side of androconial patch being present.

Length of fore wing: *apyga*, 19 mm., expanse 43 mm.; *perapyga*, 16 mm., expanse 36 mm.

1 ♂ caught.

[*Amaxia perapyga semivitreata*, subsp. n.]

♂. Differs from *p. perapyga* in the hind wing being semi-vitreous greyish white in costal half and only opaque and blackish on lower half.

3 ♂♂, 1 ♀, Fonte Boa, Upper Amazons, May-Aug. 1906 (G. M. Klages coll.)]

39. *Amaxia chaon* (Druce).

*Zatrephes chaon*, Druce, Proc. Zool. Soc. Lond. 1883, p. 383, pl. xl. fig. 10 (Sarayacu, Ecuador).

This insect varies amazingly in size, the smallest in the

Tring Museum being from St. Jean de Maroni and the largest from Costa Rica.

Expanse, ♂, smallest 26 mm., largest 46 mm.; ♀, smallest 32 mm., largest 58 mm.

5 ♂♂, 2 ♀♀ caught.

40. *Evius albiscripta*, Schaus.

*Evius albiscripta*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 213 (1906) (St. Jean de Maroni).

Sir George places this insect in the same genus as *aurococcinea*, Walk., and *cochenouri*, Schaus, but I think it fits much better into *Eriostepta*.

1 ♂ caught.

41. *Evius aurococcinea*, Walk.

*Evius aurococcinea*, Walker, List Lepid. Ins. Brit. Mus. pt. iii. p. 640. no. 1 (1855) (Pará).

11 ♂♂ caught.

42. *Aræomolis rhodographa*, Hmps. n.

*Aræomolis rhodographa*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 38. no. 1245 (1901) (Thomar, Rio Negro).

1 ♂ caught.

43. *Aræomolis sanguinea*, Hmps. n.

*Aræomolis sanguinea*, Hampson, Ann. & Mag. Nat. Hist. (7) xv. p. 442 (1905) (St. Jean de Maroni).

This insect appears to me so totally unlike the genotype that I cannot believe it is really an *Aræomolis*.

2 ♂♂ caught.

44. *Paranerita suffusa*, Rothschild.

*Paranerita suffusa*, Rothschild, Novit. Zool. vol. xvi. p. 298 (1909) (Tumatumari).

3 ♂♂, 1 ♀ caught.

45. *Paranerita metapyria*, Dognin.

*Paranerita metapyria*, Dognin, Ann. Soc. Entom. Belg. li. p. 229 (1907) (St. Laurent de Maroni).

2 ♂♂ caught.

46. *Paranerita carminata*, Schaus.

*Paranerita carminata*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 227 (1907) (St. Jean de Maroni).

2 ♂♂ caught. (This species has hitherto only been known from the unique type.)

47. *Paranerita coccineothorax*, sp. n.

♂. Nearly allied to *persimilis*, Rothsch. Differs in the narrower and more pointed fore and hind wing, in the less extent of the brownish-mauve basal area of fore wing, in the smaller subapical patch, and in the brilliant scarlet pro- and metathorax. The subapical patch does not extend beyond subcostal nervure, and above it is a bright scarlet stripe; abdomen and markings in basal area of fore wing scarlet; hind wings scarlet-crimson.

1 ♂ caught.

48. *Paranerita polyxenoides*, Rothsch.

*Paranerita polyxenoides*, Rothschild, Novit. Zool. vol. xvi. p. 297 (1909) (Fonte Boa).

1 ♂ caught.

49. *Paranerita cuneoplagiatus*, sp. n.

♂. Allied to *triangularis*, Rothsch., but with narrower and more pointed wings. Pectus pinkish cream-colour; antennæ, basal two-thirds dull pink, outer third cream-buff; head, frons yellow with red band, vertex red, yellow in front; thorax rosy red slightly powdered with yellow; abdomen with white dot at base, rosy red marked with yellow.

Fore wing reddish mauve-brown strongly washed with rose; apex yellow, a large wedge-shaped patch of yellow runs in from costa to median nervure, and a similar one from termen, both edged with scarlet, a yellow dot broadly surrounded by scarlet above vein 1 near base.

Hind wings rose-pink.

Length of fore wing 12 mm.; expanse 28 mm.

[*Paranerita oroyana*, sp. n.

♂. Very closely allied to *cuneoplagiatus*. Pectus yellowish buff; antennal shaft red, pectinations buffish yellow; head yellow slightly powdered with red; thorax pale mauve

wood-brown powdered with red and yellow; abdomen scarlet-winged and slightly powdered with yellow.

Fore wing mauve wood-brown irrorated with yellow; a small yellow patch at apex edged with scarlet, termen narrowly yellow, a very large curved wedge-shaped yellow patch runs in from costa to median vein, and between this and base of wing is a smaller yellow spot, both edged with scarlet, a wedge-shaped yellow patch edged with scarlet runs in from termen, a yellow dot edged with scarlet above and a scarlet streak below vein 1 near base. Hind wing buffish yellow suffused and towards outer third somewhat rayed with red.

Length of fore wing 16 mm.; expanse 35 mm.

5 ♂♂, La Oroya, Rio Inambari, Peru, 3100 ft., dry season, Sept. 1904 (*G. Ockenden coll.*).]

50. *Hyponerita similis*, Rothschild.

*Hyponerita similis*, Rothschild, Nov. Zool. vol. xvi. p. 299 (1909) (Fonte Boa).

1 ♂ caught.

51. *Hyponerita viola*, Dogn.

*Hyponerita viola*, Dognin, Ann. Soc. Entom. Belg. vol. liii. p. 220 (1909) (St. Laurent de Maroni).

1 ♀ caught. (1 ♀, Rio Madeira, *Moss.*)

52. *Hyponerita incerta*, Schaus.

*Hyponerita incerta*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 229 (1905) (St. Jean de Maroni).

1 ♂ caught.

53. *Hyponerita furva*, Schaus.

*Hyponerita furva*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 228 (1905) (Geldersland, Surinam River).

1 ♂ caught.

54. *Neritos onytes* (Cram.).

*Phalæna onytes*, Cramer, Pap. Exot. vol. ii. pt. xiv. p. 107, pl. clxv. fig. E (1777) (Surinam).

Sir George Hampson considers that *onytes*, Cram., and *psumas*, Cram., are ♀ and ♂ of the same insect, and that

the ♂♂ with the discal band complete and those with it broken into two spots are only aberrations. I for the present consider they are two species for the following reasons: the ♂♂ with the band complete have the pectinations of the antennæ longer and they do not start diminishing in length so soon, they have the hind wings right up to the lobe opaque dark sooty-grey, and they are less strongly tinged with pink. The ♂♂ with broken bands, on the other hand, have shorter branches to the antennæ, diminishing in length from nearer the base, have the basal half to two-thirds of hind wing more semivitreous and tinged with whitish grey, and they are very strongly tinted with rose. The ♀♀ differ only in the more opaque and darker hind wings and lighter less opaque ones respectively.

2 ♂♂, 1 ♀ caught.

55. *Neritos psamas* (Cram.).

*Phalæna psamas*, Cramer, Pap. Exot. vol. iii. pt. xx. p. 72, pl. cxxxiv. fig. G (1779) (Surinam).

2 ♂♂, 1 ♀ caught.

56. *Neritos sorex*, Druce.

*Neritos sorex*, Druce, Ann. & Mag. Nat. Hist. (7) ix. p. 323 (1902) (San Ernioto, Mapiro, Bolivia).

1 ♂ caught.

57. *Neritos sardinapalus* (Rothsch.).

*Hyponerita sardinapalus*, Rothschild, Novit. Zool. vol. xvi. p. 51, pl. vii. fig. 21 (1909) (La Union, Rio Huacamayo).

1 ♂, 1 ♀ caught.

58. *Neritos steniptera*, Hampson.

*Neritos steniptera*, Hampson, Ann. & Mag. Nat. Hist. (7) xv. p. 445 (1905) (St. Jean de Maroni).

3 ♂♂ caught. (Sir George Hampson has united my *basalis* with his *steniptera*, but it is distinct.)

59. *Neritos ockendeni coccinea*, subsp. n.

♂. Differs from *o. ockendeni* in the absence of the white markings of the fore wings, the scarlet borders being entirely filled in with scarlet on the type, and only an indication of a light mark on the termen of the second specimen.

On the hind wing the present form differs in the black outer border being much wider, occupying more than half the wing.

2 ♂♂ caught.

[*Neritos ockendeni parvimacula*, subsp. n.

♂ ♀. Differ from *o. ockendeni* in the markings on the fore wings being much reduced in size and in the much wider outer black margin to the hind wings, which occupies more than half the wing.

15 ♂♂, 6 ♀♀, St. Jean de Maroni, Cayenne.

(The Tring Museum has a ♀ from Aroewarwar Creek, Surinam, which has the dark outer portion of the hind wing occupying fully two-thirds of the wing and is probably a fourth subspecies.)]

60. *Neritos cyclopera*, Hampsn.

*Neritos cyclopera*, Hampson, Ann. & Mag. Nat. Hist. (7) xv. p. 446 (1905) (St. Jean de Maroni).

10 ♂♂, 1 ♀ caught.

61. *Neritos lavendulæ*, Rothschild.

*Neritos lavendulæ*, Rothschild, Novit. Zool. vol. xvi. p. 294 (1909) (Aroewarwar Creek).

1 ♂ caught. (Sir George Hampson has united this with *sithuides*, Druce, but the ♂ neuration is quite different.)

62. *Parevia methamia*, Schaus.

*Parevia methamia*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 213 (1905) (St. Laurent de Maroni).

1 ♂ caught.

[*Schalotomis postsuffusa*, sp. n.

♂. Pectus buff; antennæ, basal three-fifths scarlet, rest sooty-grey; head, frons brownish mauve edged with scarlet, vertex yellow; thorax mauve strongly washed with vermilion; abdomen scarlet, basal spot white, anal tuft yellow.

Fore wing, basal half obliquely pinkish mauve narrowly edged with scarlet, outer half yellow, a large rounded apical patch pinkish mauve margined very narrowly with scarlet.

Hind wing triangular, much produced at tornus; costal

two-thirds yellowish salmon-colour, inner third yellow, clothed thickly with long hair.

Length of fore wing 12 mm. ; expanse 27 mm.

1 ♂, Potaro, British Guiana, May 1908 (*S. M. Klages coll.*.)]

63. *Schalotomis postsuffusa pallida*, subsp. n.

♂. Differs from above in paler coloration and smaller size; the mauve is more greyish and the hind wing is yellowish white tinged with rose near apex. Abdomen buff marked with red.

Length of fore wing 10 mm. ; expanse 23 mm.

1 ♂ caught. (Sir George Hampson has placed my *curta*, together with an insect I described as a Lithosid, as *Diarhabdosia roseothorax* in a new genus *Schalotomis*, but I feel certain this cannot be correct.)

64. *Antaxia hyalina* (Rothsch.).

*Automolis hyalina*, Rothschild, Novit. Zool. vol. xvi. p. 41, pl. v. fig. 33 (1909) (La Oroya).

1 ♂ caught.

65. *Automolis critheis* (Druce).

*Idalus critheis*, Druce, Biol. Centr.-Amer. Het. i. p. 89, pl. ix. fig. 19 (1884) (Panama).

5 ♂ ♂ caught ; 1 ♂, 1 ♀ bred.

66. *Automolis aleteria*, Schaus.

*Automolis aleteria*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 214 (1905) (St. Jean de Maroni).

6 ♂ ♂ caught (1 labelled U. Amazon also in Moss coll.).

67. *Automolis larissa* (Druce).

*Idalus larissa*, Druce, Proc. Zool. Soc. Lond. 1890, p. 496, pl. xlii. fig. 5 (Santarem, Amazons).

4 ♂ ♂ caught (1 labelled "R. Madeira" also in Moss coll.).

68. *Automolis reducta* (Walk.).

*Automolis reducta*, Walker, List Lepid. Ins. Brit. Mus. pt. vii. p. 1638 (1856) (Amazon Valley).

2 ♂ ♂, 1 ♀ caught.

69. *Automolis albescens* (Rothsch.).

*Eupsodosoma albescens*, Rothschild, Novit. Zool. vol. xvi. p. 26, pl. iv. fig. 25 (1909) (Aroewarwar Creek).

70. *Automolis semiopalina* (Feld.).

*Ischnognatha semiopalina*, Felder, Reis. Nov. pl. cii. fig. 2 (1874) (Cayenne).

8 ♂♂, 1 ♀ caught.

71. *Automolis flavescens* (Walk.).

*Halisidota flavescens*, Walker, List Lepid. Ins. Brit. Mus. pt. vii. p. 1750 (1856) (Pará).

1 ♀ caught.

72. *Automolis lurida* (Feld.).

*Eucyrta lurida*, Felder, Reis. Nov. pl. cii. fig. 7 (1874) (Nari, Upper Amazons).

5 ♂♂ caught.

73. *Automolis sanguinolenta* (Cram.).

*Phalæna sanguinolenta*, Cramer, Pap. Exot. vol. iii. pt. xx. p. 102, pl. cclii. fig. A (1779) (Surinam).

5 ♂♂ caught.

74. *Automolis cruenta*, Rothsch.

*Automolis cruenta*, Rothschild, Novit. Zool. vol. xvi. p. 38, pl. v. fig. 39 (1909) (La Oroya).

2 ♂♂ caught.

75. *Automolis ventralis* (Schaus).

*Machærapterus ventralis*, Schaus, Proc. Zool. Soc. Lond. 1894, p. 229 (Aroa, Venezuela).

13 ♂♂ caught.

76. *Automolis leucoptera*, Hmps.

*Automolis albescens*, Rothschild, Novit. Zool. vol. xvi. p. 36, pl. v. fig. 26 (1909) (British Guiana) (nom. præoc.).

The undescribed ♂ differs in being smaller, having the



fore wings more pointed, and the hind wings more triangular in shape.

Length of fore wing, ♂ 31 mm., ♀ 43 mm.; expanse, ♂ 69 mm., ♀ 95 mm.

6 ♂♂, 2 ♀♀ caught.

77. *Automolis pandiona* (Stoll).

*Phalena pandiona*, Stoll in Cramer, Pap. Exot. vol. iv. pt. xxxiv. p. 228, pl. cccxcvii. fig. I (1782) (Surinam).

2 ♂♂, 1 ♀ bred (cocoon hammock-shaped, greyish white).

78. *Automolis milesi*, sp. n.

♀. Pectus yellow; antennæ creamy grey; frons cinnamon-brown; vertex and basal half of patagia yellow; rest of thorax mauve-cinnamon; abdomen pale cinnamon strongly washed with rose.

Fore wing cinnamon mauve-brown; a number of indistinct golden-yellow spots in basal third, a semihyaline cream-buff patch above each of veins 3, 4, and 5, a row of quadrate yellow patches on termen between veins 2 and 7, and a yellow dot below vein 2.

Hind wing, basal half and inner area dirty white, outer half sooty pale mauve-brown, a row of three yellow spots on termen near apex and fringe yellowish.

Length of fore wing 20 mm.; expanse 44 mm.

2 ♀♀ bred.

79. *Automolis apicalis* (Walk.).

*Euchromia apicalis*, Walker, List Lepid. Ins. Brit. Mus. pt. i. p. 261 (1854) (Pará).

1 ♂ caught.

80. *Automolis opposita* (Walk.).

*Euchromia opposita*, Walker, List Lepid. Ins. Brit. Mus. pt. i. p. 260 (1854) (Brazil).

2 ♂♂ caught.

81. *Automolis sphingidia* (Perty).

*Glaucopis sphingidea*, Perty, Delect. Anim. Art. p. 158, pl. xxi. fig. 12 (1834) (Rio Negro).

6 ♂♂ caught.

82. *Automolis flammans*, Hampsn.

*Automolis flammans*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 50, pl. xxxvi. fig. 9 (1901) (Columbia).

3 ♂♂ caught; 1 ♂, 4 ♀♀ bred. (Cocoon large, netted round web of coarse brown threads slightly intermixed with hair. Pupa uniform sausage-shaped, rounded at both ends, black, very glossy, interspaces of abdominal segments rufous-chestnut; cremaster consists of a bunch of short, stiff, dark brown bristles.)

83. *Automolis strigosa* (Walk.).

*Euchromia strigosa*, Walker, List Lepid. Ins. Brit. Mus. pt. i. p. 273 (1854) (Rio Janeiro).

4 ♂♂ caught.

84. *Automolis niveomaculata*, Rothsch.

*Automolis niveomaculata*, Rothschild, Novit. Zool. vol. xvi. p. 42, pl. vi. fig. 21 (1909) (La Union).

2 ♂♂ caught.

85. *Automolis alboatra*, Rothsch.

*Automolis alboatra*, Rothschild, Novit. Zool. vol. xvi. p. 46, pl. vi. fig. 30 (1909) (Fonte Boa).

3 ♂♂ caught.

[*Automolis fuliginosa*, Rothsch.

*Automolis fuliginosa*, Rothschild, Novit. Zool. vol. xvii. p. 187, pl. xiv. fig. 10 (1910) (Fonte Boa).

Some time after I described the above species from a single ♀, I found while arranging my *Amatidae* 3 ♂♂ *Arctiids* from La Union, which were evidently a species of *Automolis*, and agreed so well with what one would suppose the ♂ *fuliginosa* to be like that I put them under that species. In Mr. Moss's collection, however, there is a specimen labelled "Alt. Am." (= Upper Amazons) which is the undoubted ♂ of *fuliginosa*, for it is exactly like the ♀ type in coloration, and only differs in the fore wings being more pointed and narrower and the hind wings shorter and more triangular. Therefore the La Union insect requires a name.

*Automolis approximans*, sp. n.

♂. Differs from the ♂ of *fuliginosa* in its metallic-blue pectus and vertex, in the absence of the white dots on the patagia and the white basal patches of the tegulae, in the metallic-blue not white patch at apex of mesothorax, and in the broader, shorter, and more rounded fore wings.

Length of fore wing 15 mm.; expanse 34 mm.

3 ♂♂, La Union, Rio Huacamayo, Carabaya, 2000 ft., wet season, Nov. 1904 (*G. Ockenden coll.*.)]

86. *Automolis separata* (Walk.).

*Apyre separata*, Walker, List Lepid. Ins. Brit. Mus. pt. ii. p. 491 (1854) (Ega, Amazonas).

12 ♂♂ caught.

87. *Automolis contraria*, Walk.

*Automolis contraria*, Walker, List Lepid. Ins. Brit. Mus. pt. i. p. 259 (1904) (Ega).

2 ♂♂ caught.

88. *Automolis superba*, Druce.

*Automolis superba*, Druce, Proc. Zool. Soc. Lond. 1883, p. 382, pl. xl. fig. 8 (♀) (Sarayacu, Ecuador).

1 ♂ caught.

89. *Automolis elissa*, Schaus.

*Automolis elissa*, Schaus, Proc. Zool. Soc. Lond. 1892, p. 277 (Rio Janeiro).

90. *Automolis crocopera*, Schaus.

*Automolis crocopera*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 218 (1905) (Omai, British Guiana).

The ♀ has broader fore wings and the termen of the hind wings much less concave (excised).

2 ♂♂, 2 ♀♀ caught. (The Tring Museum has a fine ♀ from Dutch Guiana.)

91. *Automolis vitrea*, Stoll.

*Phalæna vitrea*, Stoll in Cramer, Pap. Exot. vol. iii. pt. xxiii. p. 151, pl. cclxxvi. fig. C (1780) (Surinam).

7 ♂♂, 2 ♀♀ caught.

92. *Automolis vitreoides*, sp. n.

Differs from *vitrea meridionalis* by the less distinct lines in the dark basal portion of fore wing and in their dark basal colour extending to apex along the costo-subcostal area. On the hind wing the inner third is more distinctly rose-pink and sharply cut off from rest of wing.

1 ♂ caught. (1 ♂, Trinidad, in Tring Museum.)

93. *Automolis intermedia*, Rothschild.

*Automolis intermedia*, Rothschild, Novit. Zool. xvi. p. 48, pl. vi. fig. 37 (1909) (La Union).

1 ♂, 2 ♀ ♀ caught.

94. *Automolis orbona*, Schaus.

*Automolis orbona*, Schaus, Entom. Amer. vol. v. p. 90 (1889) (Vera Cruz).

3 ♂ ♂ caught.

95. *Automolis bonora*, Schaus.

*Automolis bonora*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 219 (1905) (Cayenne).

4 ♂ ♂, 1 ♀ caught.

96. *Automolis luteola*, Rothschild.

*Automolis luteola*, Rothschild, Novit. Zool. vol. xvi. p. 44, pl. vi. fig. 9 (1909) (Sapucay).

Sir George Hampson puts my *luteola* down as the ♀ of his *Idalus xanthus*; this is not correct, as I have ♂ and ♀ of *luteola* and ♂ ♀ of *xanthus*. The Pará specimens of *luteola*, as well as of *orbona* and *bonora*, are darker and more orange than specimens from more northern localities.

2 ♂ ♂, 1 ♀ caught.

97. *Automolis polystria*, Schaus.

*Automolis polystria*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 219 (1905) (St. Jean de Maroni).

2 ♂ ♂ caught.

98. *Automolis submarginalis* (Rothschild).

*Prumala submarginalis*, Rothschild, Novit. Zool. vol. xvi. p. 24, pl. iv. fig. 16 (1909) (Minas Geraes).

99. *Automolis luteoplaga*, sp. n.

♂. Differs from *persimilis*, Rothsch., in the narrower fore wings, hardly visible pale neuration, in the pure yellow patagia, and in the much yellower thorax generally.

Length of fore wing 15 mm.; expanse 35 mm.

1 ♂ caught.

100. *Automolis ilus* (Cram.).

*Phalæna ilus*, Cramer, Pap. Exot. vol. i. pt. viii. p. 145, pl. xcii. fig. E (1776) (Surinam).

2 ♂ ♂ caught.

101. *Automolis rectiradia*, Hampson.

*Automolis rectiradia*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 65, pl. xxxvi. fig. 13 (1901) (San Paulo di Olivencas).

5 ♂ ♂, 2 ♀ ♀ caught.

102. *Automolis rutilus* (Stoll).

*Phalæna rutilus*, Stoll in Cramer, Pap. Exot. vol. iv. pt. xxxii. p. 183, pl. cccxxxii. fig. B (1781) (Surinam).

2 ♂ ♂ caught. (The buff-colour on these two specimens is deeper and brighter than in any of the long series in the Tring Museum.)

103. *Automolis albofasciata*, sp. n.

♂. Closely allied to *rutilus*; differs in the black pectus bordered with orange, in the almost obsolete grey lines on thorax, in the sooty-black not brown coloration, in the oblique subapical band of fore wing being cream-white not deep buff, and in the smaller size.

Length of fore wing, *rutilus* 19 mm., *albofasciata* 16.5 mm.; expanse, *rutilus* 45 mm., *albofasciata* 41 mm.

2 ♂ ♂ caught.

104. *Automolis moma*, Schaus.

*Automolis moma*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 218 (1905) (Omaï, Brit. Guiana).

17 ♂ ♂ caught.

105. *Automolis lutosa frater*, subsp. n.

Very closely allied to *soror*, Rothsch.

♀. Only differs in the abdomen above having the basal two-thirds above black not orange and in the ground-colour being darker.

♂. Differs from ♂ *inexpectata*, Rothsch., in having a clear broad band of semihyaline white beyond discocellulars of fore wing from subcostal to vein 3, and the hind wing semihyaline white broadly bordered all round with dark grey.

Length of fore wing, ♂ 22 mm., ♀ 32 mm.; expanse, ♂ 50 mm., ♀ 72 mm.

5 ♂♂, 5 ♀♀ caught; 6 ♂♂, 2 ♀♀ bred (cocoon rough, coarse, orange buff-brown, ovate hammock-shaped).

#### 106. *Castrica phalænoides* (Drury).

*Sphinx phalænoides*, Drury, Illust. Exot. Entom. vol. ii. p. 50, pl. xxviii. fig. 6 (1773) (Bay of Honduras).

1 ♂, 1 ♀ caught.

#### 107. *Castrica sordidior*, Rothsch.

*Castrica sordidior*, Rothschild, Novit. Zool. vol. xvi. p. 48, pl. vii. fig. 5 (1909) (Caparo, Trinidad).

4 ♂♂ caught, 1 ♂ bred (cocoon ill-formed, coarse, black network filled with larval hairs).

#### 108. *Melese dorothea* (Stoll).

*Phalæna dorothea*, Stoll in Cramer, Pap. Exot. vol. iv. pt. xxxiv. p. 228, pl. cccxcvii. fig. K (1782) (Surinam).

4 ♂♂, 2 ♂♂ bred; 5 ♂♂, 1 ♀ caught (cocoon ovate, equal; ends yellow, rough).

#### 109. *Melise flavipuncta*, Rothsch.

*Melise flavipuncta*, Rothschild, Novit. Zool. vol. xvi. p. 49, pl. vii. figs. 13, 14 (1909) (Caparo, Trinidad).

2 ♂♂, 1 ♀ bred; 6 ♂♂, 3 ♀♀ caught (cocoon a loose blackish-grey web; pupa very truncate, glossy red-brown).

#### 110. *Melise surdus*, Rothsch.

*Melise surdus*, Rothschild, Novit. Zool. vol. xvi. p. 273 (1909) (Tumatumari, Brit. Guiana).

2 ♀♀ bred, 2 ♂♂ caught (cocoon loose grey web, pupa truncate, black-brown, glossy).

Sir George Hampson has united this with *incerta*, Walk., but this is erroneous; *incerta* is always more suffused with rose-crimson and has a bright yellow cocoon.

111. *Melese incerta* (Walk.).

*Malabus incerta*, Walker, List Lepid. Ins. Brit. Mus. pt. iii. p. 716. no. 1 (1855) (Pará).

1 ♂, 1 ♀ bred; 2 ♂♂ caught (cocoon loose, ovate, bright sulphur-yellow; pupa truncate, bright reddish brown, glossy).

112. *Ammalo helops*, Cram.

*Phalæna helops*, Cramer, Pap. Exot. vol. i. pt. vi. p. 113, pl. lxxii. fig. C (1775) (Surinam).

4 ♂♂, 2 ♀♂ caught.

113. *Ammalo violitincta*, sp. n.

♂. Pectus dull brown; antennæ black-brown; head dull chocolate-brown; patagia dull chocolate-brown, rest of thorax smoky wood-brown; abdomen brownish cinnamon-orange ringed with black.

Fore wing smoky wood-brown washed with violet-mauve. Hind wing, outer half obliquely wood-brown grey, inner half greyish yellow.

Length of fore wing 31 mm.; expanse 70 mm.

1 ♂ caught.

114. *Pareuchætes aurata* (Butl.).

*Euchætes aurata*, Butler, Cist. Entom. vol. ii. p. 38 (1875) (Santarem).

2 ♂♂, 3 ♀♀ caught (Sir George Hampson has placed in *Ammalo* a heterogeneous mass of species consisting of eleven species belonging, in my opinion, to at least four if not five different genera. In addition to this, he has united *insulata*, *aurata*, and *aravaca* as one species under *insulata*, which is quite erroneous. I have for the present used the genus *Pareuchætes*, Grote, genotype *insulata*, for the three species of this group, awaiting a final revision of the Arctiinæ).

115. *Pareuchætes aravaca aurantior*, subsp. n.

♂ ♀. Differs from *aravaca aravaca*, Jord., in being suffused with orange-yellow, especially along costa and margins.

4 ♂♂, 2 ♀♀ caught.

116. *Glaucostola flavida*, Schaus.

*Glaucostola flavida*, Schaus, Proc. U.S. Nat. Mus. vol. xxix. p. 221 (1905) (St. Laurent de Maroni).

2 ♂♂ caught.

117. *Hæmanota rubriceps*, Hmps. n.

*Hæmanota rubriceps*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 87, fig. 62 (1901) (Espiritu Santo).

1 ♂ caught.

118. *Ochrodota pronapides* (Druce).

*Zatrephes pronapides*, Druce, Ann. & Mag. Nat. Hist. (6) xiii. p. 173 (1894) (Panama).

1 ♂ caught.

119. *Ochrodota brunnescens*, Rothschild.

*Ochrodota brunnescens*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 207 (1909) (Aroewarwar Creek).

1 ♂ caught.

120. *Ochrodota tessellata*, Rothschild.

*Ochrodota tessellata*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 206 (1909) (Fonte Boa).

2 ♂♂, 1 ♀ caught.

121. *Carathis klagesi*, Rothschild.

*Carathis klagesi*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 208 (1909) (Fonte Boa).

1 ♂ caught.

122. *Syntarctia anone* (Butl.).

*Halisidota anone*, Butler, Trans. Entom. Soc. Lond. 1878, p. 50, pl. iii. fig. 3 (Rio Jurua, Rio Purus).

7 ♂♂, 1 ♀ caught.

123. *Syntarctia russa tenebrosa*, subsp. n.

♂. Differs from *russa russa* in the darker, more greyish wood-brown fore wings and the greyer suffusion of the hind wings.

2 ♂♂, 1 ♀ caught.

124. *Baritius eleuthera* (Stoll).

*Phalana eleuthera*, Stoll in Cramer, Pap. Exot. vol. iv. pt. xxxi. p. 159, pl. cccxxi. fig. A (1781) (?).

1 ♂ bred (cocoon oval, rough, dark apple-green).



125. *Baritius eleutheroides*, Rothsch.

*Baritius eleutheroides*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 209 (1909) (Fonte Boa).

4 ♂ ♂ caught.

126. *Baritius flavescens*, Rothsch.

*Baritius flavescens*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 209 (1909) (Fonte Boa).

1 ♂ caught.

127. *Baritius affinis*, Rothsch.

*Baritius affinis*, Rothschild, Novit. Zool. vol. xvii. p. 39 (1910) (Fonte Boa).

1 ♂ caught.

[*Sychesia dryas dryas* (Cram.).

*Phalena dryas*, Cramer, Pap. Exot. vol. i. pt. vi. p. 110, pl. lxx. fig. C (1775) (West Indies).

2 ♂ ♂ caught, 1 Rio Madeira, 1 Upper Amazonas.]

128. *Elysius hermia* (Cram.).

*Phalena hermia*, Cramer, Pap. Exot. vol. ii. pt. xvi. p. 136, pl. clxxxv. fig. F (1777) (Surinam).

1 ♂ caught (1 ♂, Rio Madeira, also in collection).

129. *Psychophasma erosa* (Herr.-Schäff.).

*Halesidota erosa*, Herrich-Schäffer. Ausseur. Schmett. fig. 550 (1858) (Mexico).

4 ♂ ♂ caught (2 ♂ ♂, Rio Madeira, also in collection).

130. *Thalesa citrina* (Sepp).

*Phalena citrina*, Sepp, Ins. Surinam, pl. liii. (1848) (Surinam).

1 ♂, 1 ♀ bred; 7 ♂ ♂, 7 ♀ ♀ caught (1 ♂, 2 ♀ ♀, Rio Madeira, also in collection) (cocoon ovate, rough, buffish grey).

131. *Halisidota subvitreata*, sp. n.

♂ ♀. Differ from *annulosa*, Walk., in the whiter coloration, smaller and more indistinct pattern, and in the semivitreous almost translucent nature of both pairs of wings.

Length of fore wing, ♂ 16 mm., ♀ 18 mm.; expanse, ♂ 38 mm., ♀ 44 mm.

2 ♂♂, 1 ♀ caught (1 ♂, 1 ♀, St. Jean de Maroni, in Tring Museum).

132. *Halisidota buchwaldi*, Rothsch.

*Halisidota buchwaldi*, Rothschild, Novit. Zool. vol. xvii. p. 67 (1910) (Fonte Boa).

This insect is very close to *maroniensis*, Schaus, and Sir George Hampson has united it with that species. I think, however, they are distinct.

3 ♂♂, 1 ♀ caught.

[*Halisidota androlepia*, Dogn.

*Halisidota androlepia*, Dognin, Ann. Soc. Entom. Belg. vol. lii. p. 155 (1908) (Loja).

1 ♂ caught, Lower Amazons.]

133. *Halisidota sobrina*, Möschl.

*Halisidota sobrina*, Möschler, Verh. zool.-bot. Ges. Wien, vol. xxvii. p. 668, pl. ix. fig. 32 (1877) (Surinam).

1 ♂ caught, 2 ♀♀ bred (cocoon roundish-ovate, rough, cream-buff).

134. *Halisidota cyclozonata*, Hmps. n.

*Halisidota cyclozonata*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 162. no. 1500, pl. xl. fig. 2 (1901) (St. Paulo di Olivencas).

1 ♂ caught.

135. *Halisidota sannionis* (Rothsch.).

*Baritius sannionis*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 209 (1909) (La Oroya).

3 ♂♂, 2 ♀♀ caught.

136. *Halisidota polyodonta*, Hmps. n.

*Halisidota polyodonta*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 166. no. 1510, pl. xli. fig. 2 (1901) (Parintins, Amazons).

4 ♂♂, 3 ♀♀ caught.

137. *Halisidota ochracea*, Möschl.

*Halisidota ochracea*, Möschler, Verh. zool.-bot. Ges. Wien, vol. xxxii. p. 337, pl. xviii. fig. 28 (1883) (Surinam).

1 ♀ caught.

138. *Halisidota rufo-ochracea*, sp. n.

♀. Nearest to *ochracea*, but much darker; differs at first sight by its truncated fore wing with square-cut termen; it also differs in the head, antennæ, thorax, and fore wings being orange-rufous not golden-orange as in *ochracea*.

1 ♂ bred (cocoon a coarse network, sooty-brown; pupa black, thorax and wing-coverts reddish brown).

139. *Halisidota stipulatoides*, Rothsch.

*Halisidota stipulatoides*, Rothschild, Novit. Zool. vol. xvii. p. 64 (1910) (Christianburg).

1 ♂ caught.

140. *Halisidota strigulosa*, Walk.

*Halisidota strigulosa*, Walker, List Lepid. Ins. Brit. Mus. pt. iii. p. 737 (1855) (Pará).

Sir George Hampson united under *rhomboidea*, Sepp, *strigulosa*, Walk., *citrina*, Walk., and *mandus*, H.-Sch.; he himself afterwards recognised *mandus* as distinct, but *strigulosa* also is a distinct species, and I believe *citrina* is also.

1 ♂, 1 ♀ bred (cocoon ovate, rough, sooty-black).

141. *Metaxanthia vespiformis*, Druce.

*Metaxanthia vespiformis*, Druce, Ann. & Mag. Nat. Hist. (7) iii. p. 465 (1899) (Villa Nova, Amazons).

1 ♀ caught.

142. *Agorea semivitrea*, Rothsch.

*Agorea semivitrea*, Rothschild, Novit. Zool. vol. xvi. p. 291 (1909) (no special type-locality, *nomen novum*).

3 ♀ ♀ caught.

143. *Palustra laboulbeni*, Bar.

*Palustra laboulbeni*, Bar, Ann. Soc. Entom. France, (5) iii. p. 301 pl. viii. (2), figs. 1-8 (1873).

Sir George Hampson places these American insects, together with some very different-looking African and Asiatic species, in the genus *Mænas*. I feel sure this is wrong. *Mænas* has as genotype *vocula*, Stoll, which is an African species, and I consider should be confined to the African species. *Bucea* and *Curbisa*, with *simplex*, Walk., and *venosa*, Moore, respectively, as genotypes, must be

restricted to the Asiatic species, and *Palustra* with *laboulbeni* as its genotype must be used for the American forms with the exception of *vestalis*, which will probably require a new genus.

5 ♂♂, 7 ♀♀ bred (larva black, dorsal tufts short with a double median row of still stouter rufous-buff ones, lateral tufts black, long, and silky; cocoon ovate, hammock-shaped, sooty-black, smooth). (1 ♂, 1 ♀, Rio Madeira, also in collection.)

#### 144. *Palustra tenuis*, Berg.

*Palustra tenuis*, Berg, Stett. entom. Zeit. vol. xxxviii. p. 259 (1877).

5 ♂♂, 4 ♀♀ bred (1 ♂, 1 ♀, Rio Madeira, in the collection).

#### 145. *Pseudalus aurantiaca*, Rothschild.

*Pseudalus aurantiacus*, Rothschild, Novit. Zool. vol. xvi. p. 52, pl. vii. figs. 25, 26 (1909) (Aroewarwar Creek).

2 ♂♂ caught.

#### [*Ecpantheria mus bahiaensis*, Oberthür.]

*Ecpantheria bahiaensis*, Oberthür, Etud. Entom. livr. vi. p. 109, pl. xvi. fig. 5 (1881) (Bahia).

1 ♀, Pernambuco, bred (pupa deep brown shagreened, abdominal interspaces red-brown; cremaster short, consisting of two bunches of stiff bristles; larval spine entirely black with stiff bristly hairs).]

#### 146. *Ecpantheria cunigunda* (Stoll).

*Phalæna cunigunda*, Stoll in Cramer, Pap. Exot. vol. iv. pt. xxix. p. 104, pl. cccxliv. figs. D, E (1781) (Surinam).

The species of *Ecpantheria*, with few exceptions, are very complicated and difficult to identify correctly. Sir George Hampson has sunk a large number of species created by Monsieur Oberthür in his monograph, but, in my opinion, in most cases has placed them as synonyms to wrong species. The forms of the *cunigunda-bari* group are especially puzzling, and I believe the principal difficulty arises from the rapid and often very irregular fading of the wings and body. I have come to the conclusion that the specimens from the Guianas, Northern Brazil, and the Amazons are all one form and synonymous, while the South Brazilian specimens form a local race, and the two races must stand thus :—

*Ecpantheria cunigunda cunigunda*, Stoll.

*Ecpantheria cayennensis*, Oberthür, Etud. Entom. livr. vi. p. 107, pl. xiv. figs. 1, 3 (1881) (Cayenne).

*Ecpantheria bari*, Oberthür, Etud. Entom. livr. vi. p. 108, pl. xiv. fig. 5 (1881) (Cayenne).

*Ecpantheria dubiosa*, Oberthür, Etud. Entom. livr. vi. p. 108, pl. xiv. fig. 6 (1881) (Cayenne).

*Ecpantheria cunigunda ganglio*, Oberth.

*Ecpantheria ganglio*, Oberthür, Etud. Entom. livr. vi. p. 108, pl. xiii. fig. 5 (1881) (Santa Catharina).

*Ecpantheria orbiculata*, Oberthür, Etud. Entom. livr. vi. p. 108, pl. xiv. fig. 7 (1881) (Brazil).

*Ecpantheria proxima*, Oberthür, Etud. Entom. livr. vi. p. 108, pl. xv. fig. 9 (1881) (Brazil).

Of *cunigunda cunigunda* there are in the collection 11 ♂♂, 4 ♀♀ bred (pupa glossy black, abdominal interspaces golden-yellow).

146 a. *Ecpantheria detecta*, Oberth.

*Ecpantheria detecta*, Oberthür, Etud. Entom. livr. vi. p. 109, pl. xv. fig. 8 (1881) (Pará).

Sir George Hampson places *detecta* as a synonym of *abdominalis*, together with *proxima*, *detectiva*, *annexa*, and *aramis*, Oberth. Most of these are quite distinct species, and *detecta* must also stand as such.

1 ♂ caught. (There are also in collection 1 ♂, 2 ♀♀, Upper Amazon, caught.)

147. *Calidota rema* (Dogn.)

*Pseudapistosia rema*, Dognin, Bull. Soc. Entom. France, vol. lx. p. clxxvi (1891) (Sta Catharina).

1 ♀ caught.

148. *Purius pilumnia* (Stoll):

*Phalæna pilumnia*, Stoll in Cramer, Pap. Exot. vol. iv. pt. xxvi. p. 36, pl. cccvii. fig. D (1780) (Surinam).

2 ♂♂ caught. (There are also in the collection 2 ♂♂ from the Rio Madeira and 1 ♂ from Upper Amazons.)

149. *Paracles contraria*, Walk.

*Paracles contraria*, Walker, List Lepid. Ins. Brit. Mus. pt. iii. p. 717 (1855) (Pará).

4 ♂♂, 1 ♀ caught.

150. *Utetheisa ornatricx* (Linn.).

*Phalena ornatricx*, Linnæus, Syst. Nat. edit. x. vol. i. p. 511 (1758).

9 ♂♂, 12 ♀♀ bred; 1 ♂, 1 ♀ caught.

The following species were overlooked:—

56 a. *Neritos leucoplaga*, Hmps. n.

*Neritos leucoplaga*, Hampson, Ann. & Mag. Nat. Hist. (7) xv. p. 444 (1905) (St. Laurent de Maroni).

1 ♂, 1 ♀ caught.

143 a. *Virbia parva*, Schaus.

*Virbia parva*, Schaus, Proc. Zool. Soc. Lond. 1892, p. 215 (Peru).

2 ♂♂ caught.

143 b. *Virbia palmeri*, Druce.

*Virbia palmeri*, Druce, Ann. & Mag. Nat. Hist. (8) viii. p. 139 (1911) (San Antonio, Columbia).

2 ♂♂ caught.

143 c. *Virbia hypophæa tenuimargo*, subsp. n.

♂ ♀. Differs from *hypophæa hypophæa*, Hmps. n., in the much narrower black margins of the hind wings in both sexes.

1 ♂, 1 ♀ caught.

6 a. *Neidalia bipuncta*, sp. n.

♂. Pectus reddish orange; antennæ, head, and thorax cinnamon-orange; abdomen, basal two-thirds salmon-red, anal third orange.

Fore wing orange salmon-red, costa orange, rest of nervures golden-yellow; two black dots on discocellulars and a black streak on vein 5. Hind wings salmon-pink.

Length of fore wing 16 mm.; expanse 36 mm.

5 ♂♂ caught.

The following are in the collection from Peru and other localities:—

1. *Robinsonia mossi*, sp. n.

♂. Pectus buff; antennæ, shaft white above, pectinations

and shaft below sooty-grey; frons whitish, vertex orange; thorax white; abdomen, basal segment white, rest orange. Wings sericeous milk-white.

Length of fore wing 21-24 mm.; expanse 48-52 mm.

7 ♂♂ caught, Lima, Peru.

## 2. *Idalus admirabilis* (Cram.).

*Phalena admirabilis*, Cramer, Pap. Exot. vol. ii. pt. ix. p. 11, pl. ciii. fig. G (1777) (Surinam).

1 very large ♂ caught, Chanchamayo District.

## 3. *Automolis contraria*, Walk., subsp. ?

1 ♀, from the Rio Madeira, caught.

There are at least two subspecies of *contraria*; and the above specimen differs from typical ♀♀ in having a very small subapical white spot, and apparently narrower black margins. It also has a yellow costa up to the black apex, while typical ♀♀ have the costa black.

Probably, therefore, further specimens would prove the existence of a third subspecies.

[*Automolis contraria peruviana*, subsp. n.]

♀. Differs from *contraria contraria* in the very much wider black apex to fore wings, in the much larger white subapical spots, in the yellow not black inner margin of fore wings, and in the much narrower black margins to fore and hind wings.

1 ♀, La Unión, Rio Huacamayo, Carabaya, 2000 ft., Dec. 1904 (wet season) (*G. Ockenden*).]

## 4. *Automolis drucei*, sp. n.

♀. Nearest to *dissimilis*, Druce. Differs in pectus being orange not black, in the black not grey and brown palpi and legs, and in the entirely black abdomen with last segment and anal tuft buffish grey; a grey spot on each side of sixth segment.

Fore wings differ in being darker grey, the nervures rufous not whitish; the costa white not dark buff. The hind wings are darker.

Length of fore wing 32 mm.; expanse 72 mm.

1 ♀ bred (cocoon grey, somewhat loose-webbed, hammock-shaped; pupa rufous, glossy, somewhat densely clothed on sides and dorsally with rufous hair, cremaster long, dart-shaped, sharply pointed).

5. *Melesse flavipunctata*, Rothsch.

*Melesse flavipunctata*, Rothschild, Novit. Zool. vol. xvi. p. 49, pl. vii. figs. 13, 14 (1909) (Caparo, Trinidad).

1 ♂ caught, Lima, Peru.

6. *Bertholdia crocea mossi*, subsp. n.

Differs from *crocea crocea*, Schaus, from Costa Rica, by the more maroon-brown NOT orange rufous-brown of the non-vitreous portions of the fore wings.

1 ♂ bred, Lima, Peru (cocoon ovate, flattened, attached to surface of leaf, rough, bright sulphur-yellow).

7. *Anmalo trujillaria peruviana*, subsp. n.

Very near *violitincta*, Rothsch., in appearance (*antea*, p. 479).

♂. Pectus yellowish brown-grey; antennæ brown, as strongly punctured as in *helops*, Cram.; head and thorax dark fuscous-grey; abdomen black-brown ringed with pinkish grey and clothed with long pinkish-grey hairs on basal half.

Fore wings yellowish wood-grey, densely irrorated and strigillated with dark fuscous-grey.

Hind wings pinkish cinnamon-grey, scriceous.

♀ similar, but larger and with very much shorter pectinations to the antennæ.

Length of fore wing, ♂ 30 mm., ♀ 35 mm.; expanse, ♂ 66 mm., ♀ 76 mm.

5 ♂♂, 4 ♀♀ bred, Lima, Peru (cocoon pear-shaped, sooty-brown, network not dense, transparent; pupa deep brown, glossy; abdomen much smaller and rounded, truncate; cremaster consists of tiny bunch of short hairs. Parasite *Henicospilus*, var. *flaviscutellatus*, cocoon of parasite cylindrical, bluntly rounded both ends, rough, black).

8. *Anmalo helops* (Cram.).

*Phalæna helops*, Cramer, Pap. Exot. vol. i. pt. vi. p. 113, pl. lxxii. fig. C (1775) (Surinam).

1 ♂, 4 ♀♀ caught, Chanchamayo District.

9. *Pachydota nervosa* (Feld.).

*Lophocampa nervosa*, Felder, Reise Nov. Lepid. pl. ci. fig. 6 (1874) (Bogota).

1 ♀ caught, Chanchamayo District.



10. *Syntarctia anone* (Butl.).

*Halisidota anone*, Butler, Trans. Entom. Soc. Lond. 1878, p. 50, pl. iii. fig. 3 (Rio Jurua, Rio Purus).

1 ♀, unlabelled.

11. *Pelochyta brunnescens*, Rothsch.

*Pelochyta brunnescens*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 226 (1909) (Sto. Domingo, Carabaya).

1 ♂ caught, Chanchamayo District.

[*Elysium bicolor* (Weym. & Maass.).

*Elysium bicolor*, Weymer & Maasser, in Stübel's Reisen in Sud Amer. p. 132, pl. v. fig. 1 (1890) (Putzulagua, Ecuador).

This species has been wrongly identified by Sir George Hampson, myself, and others: the description and figure emphasising the yellow-red costal area of fore wing should have been sufficient to prove that the two or more Peruvian insects placed under the name *bicolor* (= *walkeri* and *mossi*, infra) could not be that insect.]

12. *Elysium walkeri*, sp. n.

♂. Pectus dark brown; antennæ umber-brown; head and thorax sooty black-brown; abdomen above basal two-thirds brightly yellowish buff, long-haired, anal one-third brown.

Fore wings sooty wood-brown, very thinly scaled, nervures reddish brown.

Hind wings semihyaline milk-white, abdominal area buffish, costal and terminal fringes grey.

♀. Similar, larger; fore wings more densely scaled; abdomen, basal portion greyish buff, anal portion brownish wood-grey.

Length of fore wing, ♂ 26 mm., ♀ 30 mm.; expanse, ♂ 60 mm., ♀ 68 mm.

1 ♂, 1 ♀ caught, Lima, Peru (♂ type).

Named after Commander J. J. Walker, who took the first specimen.

13. *Elysium cellularis*, sp. n.

♂. Pectus dark mahogany-brown; antennæ, shafts black, pectinations rufous-brown; head and thorax black; abdomen sooty wood-brown.

Fore wing basal two-fifths and costal area black, outer

three-fifths sooty yellowish brown-grey, very thinly scaled, a black patch on discocellulars.

Hind wing somewhat semihyaline milk-white.

Length of fore wing 24 mm.; expanse 54 mm.

1 ♂ caught, Lima, Peru.

14. *Elysius mossi*, sp. n.

♂. Pectus, head, and thorax sooty brown-black; antennæ greyish brown-black; abdomen, basal half sooty brown-grey, anal half black-brown.

Fore wing sooty dark brown, thinly scaled on disc, nervures brighter brown.

Hind wing somewhat semihyaline greyish milk-white, nervures brownish.

♀ smaller, antennæ deep black; fore wings densely scaled sooty-black; hind wings greyer; basal half of abdomen greyer.

Length of fore wing, ♂ 28 mm., ♀ 24 mm.; expanse, ♂ 62 mm., ♀ 58 mm.

1 ♂, 3 ♀ caught, Lima, Peru (2 ♂ ♂ in Tring Museum; 1 Ecuador (*Staudinger*); 1 Riobamba, Ecuador (*Simons*)).

15. *Opharus astur* (Cram.).

*Phalæna astur*, Cramer, Pap. Exot. vol. ii. pt. x. p. 35, pl. cxx. fig. B (1777) (Surinam).

1 ♀ caught, Chanchamayo District.

16. *Amastus rumina meridionalis*, subsp. n.

♂ ♀. Differs from *rumina rumina*, Druce, from Costa Rica, in the less rufous-brown shading of the fore wings and the broader orange markings on the patagia and tegulæ.

1 ♂, 1 ♀ caught, Chanchamayo District.

17. *Thalesa citrina albipuncta* (Rothsch.).

*Halisdota albipuncta*, Rothschild, Ann. & Mag. Nat. Hist. (8) iv. p. 221 (1909) (Ecuador).

1 ♂, 1 ♀ caught, Lima, Peru; 1 ♀ caught, Chanchamayo District.

18. *Thalesa amaxiæformis* (Rothsch.).

*Halisdota amaxiæformis*, Rothschild, Novit. Zool. vol. xvii. p. 68 (1910) (Rio Cazapas, Ecuador).

1 ♂ caught, Santarem.

19. *Halisidota alsus* (Cram.).

*Phalena alsus*, Cramer, Pap. Exot. vol. ii. pt. x. p. 26, pl. cxiii. fig. E (1777) (Surinam).

4 ♂♂, 3 ♀♀ caught, Lima, Peru.

20. *Halisidota sobrina*, Möschl.

*Halisidota sobrina*, Möschler, Verh. zool.-bot. Gesells. Wien, vol. xxvii. p. 668, pl. ix. fig. 32 (1877) (Surinam).

1 ♂ caught, Chanchamayo District.

21. *Halisidota schausi occidentalis*, subsp. n.

♂ ♀. Somewhat intermediate between *schausi schausi* and *schausi pallida*; the colour of the bands and spots on fore wing less brown, more greyish than in the former, but much darker than in the latter. The median band is considerably narrower than in *schausi schausi*, and narrows sharply above median to costa as in *pallida*. Hind wing greyer.

3 ♂♂, 5 ♀♀ caught, Lima, Peru.

22. *Halisidota truncata*, sp. n.

♀. Nearest allied to *ochracea*, Möschl., but at once distinguished by its square truncated termen of fore wings.

Antennæ dark brown; head and thorax and two basal segments greyish buff; rest of abdomen yellowish.

Fore wing buff powdered with greyish brown, a round black spot on discocellulars.

Hind wings semihyaline greyish buff.

Length of fore wing 15 mm.; expanse 36 mm.

1 ♀ bred, Pernambuco (cocoon greyish buff, clothed in long dense hair; pupa golden-brown, highly polished).

23. *Agorea semivitrea*, Rothsch.

*Agorea semivitrea*, Rothschild, Novit. Zool. vol. xvi. p. 291 (1909).

1 ♀ caught, Lima, Peru.

24. *Agorea mossi*, sp. n.

♂. Allied to *klagesi*, Rothsch., but paler, less grey; abdomen unspotted, except one dot at base; fore wing more suffused with yellow.

Length of fore wing 14 mm.; expanse 31 mm.

1 ♂ caught, Lima, Peru.

25. *Epantheria magdalenæ*, Oberth.

*Epantheria magdalenæ*, Oberthür, Etud. Entom. livr. vi. p. 111, pl. xviii. figs. 5, 8 (1881) (Columbia).

1 ♂ caught, Chanchamayo District.

26. *Epantheria peruvensis*, Hmps. n.

*Epantheria peruvensis*, Hampson, Cat. Lepid. Phal. Brit. Mus. vol. iii. p. 374. no. 1917, pl. li. fig. 10 (1901) (Legrario, Peru).

1 ♀ caught, Chanchamayo District.

27. *Epantheria detecta*, Oberth.

*Epantheria detecta*, Oberthür, Etud. Entom. livr. vi. p. 109, pl. xv. fig. 8 (1881) (Pará).

1 ♀ caught, Chanchamayo District.

28. *Epantheria dubia*, sp. n.

♂ ♀. Differ from *cunigunda*, Stoll, in the pure white thorax, the transverse yellow and blue bands of abdomen, and in the closely placed bands of spots on fore wings and their obsolete pale appearance.

1 ♂, 1 ♀ caught, Lima, Peru.

29. *Epantheria andensis*, sp. n.

♂. Antennæ above basal three-quarters greyish white, terminal quarter black-brown; head greyish white, a dark brown tuft on vertex; thorax whitish grey, more or less densely powdered with black-brown; abdomen black-brown with lateral bands of dark yellow, basal segment with two tufts of grey.

Fore wing, basal third, costal area, and broad area above and below vein 1 dark grey, powdered, freckled, and banded with whitish grey; rest of wing hyaline, very sparsely powdered with grey scales; nervures dark grey, powdered with pale grey.

Hind wing, abdominal two-fifths brown-grey, whitish along inner edge to tornus, rest of wing hyaline, faintly and sparsely powdered with grey.

Length of fore wing 20-22 mm.; expanse 48-52 mm.

2 ♂ ♂ caught, "Junin, Andes, Peru, 14,000 ft., lat. 12°."

30. *Ecpantherina muzina*, Oberthür.

*Ecpantheria muzina*, Oberthür, Etud. Entom. livr. vi. p. 105, pl. xii. fig. 4 (1881) (Muzo, Columbia).

2 ♂♂, 7 ♀♀ caught, Lima, Peru.

Sir George Hampson has included *yukatensis*, Oberthür., under this species, but I feel sure that is wrong. Of the six others of Oberthür's, which Sir George has also placed under *muzina*, I am equally convinced that several are distinct.

31. *Mallocephala imitatrix*, sp. n.

This insect in the ♂ is a curious mimic of *Mœnas? flavata*, Hampson.

♂ (normal). Antennæ, head, thorax, and abdomen deep black.

Fore and hind wings sooty-black, thinly scaled, nervures deep black.

♂ (ab. *luteola*). Sides of abdomen, costal area of fore wings, and basal half of hind wings dirty buffish yellow.

♂ (ab. *griseola*). Antennæ grey-brown; head and tegulæ buffish grey; abdomen buffish grey with narrow transverse dorsal lines.

Fore wing yellowish grey. Hind wing semihyaline isabelle-grey.

♀. Apterous, covered with sooty-black and grey or grey-down.

Length of fore wing, ♂, 11-13 mm.; expanse 26-28 mm.

17 ♂♂, 12 ♀♀ bred (1 ♂ ab. *griseola*, 7 ♀♀ ab. *luteola*), "Junin, Andes of Peru, 14,000 ft." (larva black with major portion of hairs of dorsum orange-rufous; pupa red-brown, interspaces of abdominal segments yellowish brown; cocoon ovate, hammock-shaped, thin, sooty-brown network).

The following species are out of order:—

32. *Palustra elongata*, sp. n.

♂. Head sooty black-brown; antennæ, shaft brown-grey, pectinations honey-brown; thorax wood-brown mixed with golden-brown hairs; abdomen golden-orange, a patch of sooty-brown hair on basal segment, anal segment and tuft yellowish grey.

Fore wing golden-buff somewhat freckled with black and with flammulated patches of black scales, an area, free of black scales, forming a sinuate postmedian buff band, sub-terminal area with fewer black scales; a black stigma on discocellulars.

Hind wing yellowish buff, semivitreous on disc, a broken submarginal dusky line.

♂ (ab. *sordida*). Black scaling much intensified, almost swamping entirely the ground-colour; hind wings suffused entirely with grey.

♀. Similar to ♂, but deeper golden-buff ground-colour and varying much in extent of black scaling; ♀ (ab. *sordida*) entirely dark brown, nervures blackish.

Length of fore wing, ♂ 16-17, ♀ 20-22 mm.; expanse, ♂ 40-42, ♀ 46-52 mm.

2 ♂♂, 8 ♀♀ (1 ♂, 1 ♀, ab. *sordida*) bred, "Junin, Andes of Peru, 1400 ft."

### 33. *Palustra postflavida*, sp. n.

♀. Antennæ dark brown; head and thorax brown sprinkled with yellowish hairs; abdomen above blackish brown with golden-yellow rings, basal segments with long brown hairs, anal tuft buffy-orange.

Fore wing umber-brown, very sparsely sprinkled with paler scales, two postmedian darker brown shadow bands, an arrow-shaped black disco-cellular stigma.

Hind wings with only one postdiscal darker band.

Length of fore wing 25 mm.; expanse 57 mm.

1 ♀ bred, "Junin, Andes of Peru, 14,000 ft." (pupa rufous-brown, broad, and truncate).

## LVII.—Notes on some Parasitic Nematodes.

By H. A. BAYLIS, M.A., D.Sc.

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### I.—ON THE GENUS *WELLCOMIA*, SAMBON, AND A NEW SPECIES OF THAT GENUS.

#### *Wellcomia samboni*, sp. n.

Host: hairy porcupine (*Coendou* [*Sphingurus*] *villosus*)\*.

Position: intestine.

Locality: Paraguay. [The animal had been in captivity in the Zoological Society's Gardens, London, for thirteen months.]

The material upon which this note is based was collected

\* More correctly *C. couiy*, Desm.